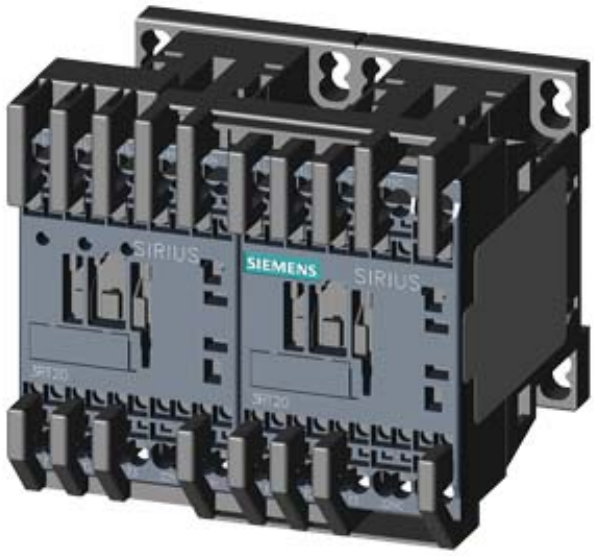
SIEMENS

## Product data sheet 3RA2318-8XE30-2BB4




REV. COMB. W.I/O-LINK, AC3, 7.5KW/400V,
DC24V 3-POLE,
SZ S00 SPRING-LOADED TERMINAL ELECTR. AND
MECH. INTERLOCK

| General technical data: | | |
|---|---|---|
| **Product brand name** | | SIRIUS |
| **product designation** | | reversing contactor assembly 3RA23 |
| **Product function** | | reversing contactor |
| **Size of the contactor** | | S00 |
| **Protection class IP / on the front** | | IP20 |
| **Degree of pollution** | | 3 |
| **Insulation voltage / with degree of pollution 3 / rated value** | V | 690 |
| **Installation altitude / at a height over sea level / maximum** | m | 2,000 |
| **Ambient temperature** | | |
| • during transport | °C | -55 … 80 |
| • during storage | °C | -55 … 80 |
| • during operating | °C | -25 … 60 |
| **Resistance against shock** | | 9.8g / 5 ms and 5.9g / 10 ms |
| **Impulse voltage resistance / rated value** | kV | 6 |
| **Active power loss / per conductor / typical** | W | 1.3 |
| **Item designation** | | |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | K |
| • according to DIN EN 61346-2 | | Q |

| | | |
|---|---|---|
| **Manufacturer article number** | | |
| • of the function module for communication included in the scope of supply | | 3RA2711-2BA00 |
| • 1 / of the contactor included in the scope of supply | | 3RT2018-2BB42-0CC0 |
| • 2 / of the contactor included in the scope of supply | | 3RT2018-2BB42 |
| • of the RS applied assembly kit | | 3RA2913-2AA2 |
| **Mechanical operating cycles as operating time** | | |
| • of the main contacts / typical | | 10,000,000 |
| • of the auxiliary contacts / typical | | 10,000,000 |
| • of the contactor / typical | | 10,000,000 |
| • of the contactor with added auxiliary switch block / typical | | 10,000,000 |

## Communication:

| | | |
|---|---|---|
| **Product function** | | |
| • bus-communication | | Yes |
| • control circuit interface with IO link | | Yes |
| **Protocol / will be supported / AS interface protocol** | | No |

## Main circuit:

| | | |
|---|---|---|
| **Number of poles / for main current circuit** | | 3 |
| **Number of NC contacts / for main contacts** | | 0 |
| **Number of NO contacts / for main contacts** | | 3 |
| **Operating voltage / at AC-3 / rated value / maximum** | V | 690 |
| **Operating current** | | |
| • at AC-1 / at 400 V | | |
| • at 40 °C ambient temperature / rated value | A | 18 |
| • at 60 °C ambient temperature / rated value | A | 16 |
| • at AC-2 / at 400 V / rated value | A | 7 |
| • at AC-3 / at 400 V / rated value | A | 16 |
| • at AC-4 / at 400 V / rated value | A | 6.5 |
| • with 1 current path / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 2.1 |
| • with 2 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 12 |
| • with 3 current paths in series / at DC-1 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 20 |
| • with 1 current path / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |

| | | |
|---|---|---|
| • at 110 V / rated value | A | 0.15 |
| • with 2 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 0.35 |
| • with 3 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / rated value | A | 20 |
| • at 110 V / rated value | A | 20 |
| **Service power** | | |
| • at AC-2 / at 400 V / rated value | kW | 7.5 |
| • at AC-3 | | |
| • at 400 V / rated value | kW | 7.5 |
| • at 500 V / rated value | kW | 7.5 |
| • at 690 V / rated value | kW | 7.5 |
| • at AC-4 / at 400 V / rated value | kW | 3.5 |
| **Off-load operating frequency** | 1/h | 15 |
| **Frequency of operation** | | |
| • at AC-1 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |
| • at AC-2 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |
| • at AC-3 / according to IEC 60947-6-2 / maximum | 1/h | 1,000 |
| • at AC-4 / according to IEC 60947-6-2 / maximum | 1/h | 300 |

| **Control circuit:** | | |
|---|---|---|
| **Design of activation** | | conventional |
| **Design of the surge suppressor** | | with varistor |
| **Type of voltage / of the controlled supply voltage** | | DC |
| **Control supply voltage frequency** | | |
| • 1 / rated value | Hz | 50 |
| • 2 / rated value | Hz | 60 |
| **Control supply voltage / 1** | | |
| • for DC / rated value | V | 24 |
| **Operating range factor control supply voltage rated value / of the solenoid** | | |
| • for DC | | 0.85 … 1.1 |
| **Pull-in power / of the solenoid / for DC** | W | 4 |
| **Holding power / of the solenoid / for DC** | W | 4 |
| **Resistive loss / of the magnet coil / for DC** | | |
| • typical | W | 4 |

| **Auxiliary circuit:** | | |
|---|---|---|
| **Product extension / auxiliary switch** | | Yes |
| **Contact reliability / of the auxiliary contacts** | | < 1 error per 100 million operating cycles |

| | | |
|---|---|---|
| **Number of NC contacts / for auxiliary contacts** | | |
| • per direction of rotation | | 0 |
| • instantaneous switching | | 0 |
| • lagging switching | | 0 |
| **Number of NO contacts / for auxiliary contacts** | | |
| • per direction of rotation | | 0 |
| • instantaneous switching | | 0 |
| • leading switching | | 0 |
| **Operating current / of the auxiliary contacts** | | |
| • at AC-12 / maximum | A | 10 |
| • at AC-15 | | |
| • at 230 V | A | 6 |
| • at 400 V | A | 3 |
| • at DC-12 | | |
| • at 48 V | A | 6 |
| • at 60 V | A | 6 |
| • at 110 V | A | 3 |
| • at 220 V | A | 1 |
| • at DC-13 | | |
| • at 24 V | A | 10 |
| • at 48 V | A | 2 |
| • at 60 V | A | 2 |
| • at 110 V | A | 1 |
| • at 220 V | A | 0.3 |

## Short-circuit:

| | | |
|---|---|---|
| **Design of the fuse link** | | |
| • for short-circuit protection of the main circuit | | |
| • with type of assignment 1 / required | | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A |
| • at type of coordination 2 / required | | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A |
| • for short-circuit protection of the auxiliary switch / required | | fuse gL/gG: 10 A |

## Installation/mounting/dimensions:

| | | |
|---|---|---|
| **Built in orientation** | | any |
| **Type of mounting** | | screw and snap-on mounting onto 35 mm standard mounting rail |
| **Width** | mm | 90 |
| **Height** | mm | 68 |
| **Depth** | mm | 73 |
| **Distance, to be maintained, to the ranks assembly** | | |

| | | |
|---|---|---|
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sidewards | mm | 6 |
| **Distance, to be maintained, to earthed part** | | |
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sidewards | mm | 6 |
| **Distance, to be maintained, conductive elements** | | |
| • forwards | mm | 6 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sidewards | mm | 6 |

## Connections:

| | | |
|---|---|---|
| **Design of the electrical connection** | | |
| • for main current circuit | | spring-loaded terminals |
| • for auxiliary and control current circuit | | spring-loaded terminals |
| **Type of the connectable conductor cross-section** | | |
| • for main contacts | | |
| • solid | | 2x (0.5 ... 4 mm²) |
| • stranded | | 2x (0.5 ... 4 mm²) |
| • finely stranded | | |
| • with conductor end processing | | 2x (0.5 ... 2.5 mm²) |
| • without conductor final cutting | | 2x (0.5 ... 2.5 mm²) |
| • for AWG conductors / for main contacts | | 1x (20 ... 12) |
| • for auxiliary contacts | | |
| • solid | | 2x (0.5 ... 2.5 mm²) |
| • finely stranded | | |
| • with conductor end processing | | 2x (0.5 ... 1.5 mm²) |
| • without conductor final cutting | | 2x (0.5 ... 1.5 mm²) |
| • for AWG conductors / for auxiliary contacts | | 2x (20 ... 14) |

## Certificates/approvals:

| | | |
|---|---|---|
| **Verification of suitability** | | CE / UL / CSA / CCC |

| General Product Approval | | | Test Certificates |
|---|---|---|---|
| CSA | ROSTEST | UL | Manufacturer |

| Shipping Approval | | | | | |
|---|---|---|---|---|---|
| ABS | DNV | GL | LRS | PRS | RINA |

| Shipping Approval | other |
|---|---|
| RMRS | other |

| UL/CSA ratings | | |
|---|---|---|
| **yielded mechanical performance (hp)** | | |
| • for single-phase squirrel cage motors | | |
| • at 110/120 V / rated value | hp | 1 |
| • at 230 V / rated value | hp | 2 |
| • for three-phase squirrel cage motors | | |
| • at 200/208 V / rated value | hp | 3 |
| • at 220/230 V / rated value | hp | 5 |
| • at 460/480 V / rated value | hp | 10 |
| • at 575/600 V / rated value | hp | 10 |
| **Operating current (FLA) / for three-phase squirrel cage motors** | | |
| • at 480 V / rated value | A | 14 |
| • at 600 V / rated value | A | 11 |
| **Contact rating designation / for auxiliary contacts / according to UL** | | A600 / Q600 |

| Safety: | | |
|---|---|---|
| **B10 value / with high demand rate** | | |
| • according to SN 31920 | | 1,000,000 |
| **Failure rate (FIT value) / with low demand rate** | | |
| • according to SN 31920 | FIT | 100 |
| **Proportion of dangerous failures** | | |
| • with low demand rate / according to SN 31920 | % | 40 |
| • with high demand rate / according to SN 31920 | % | 75 |
| **T1 value / for proof test interval or service life** | | |
| • according to IEC 61508 | a | 20 |
| **Protection against electrical shock** | | finger-safe |

## Further information:

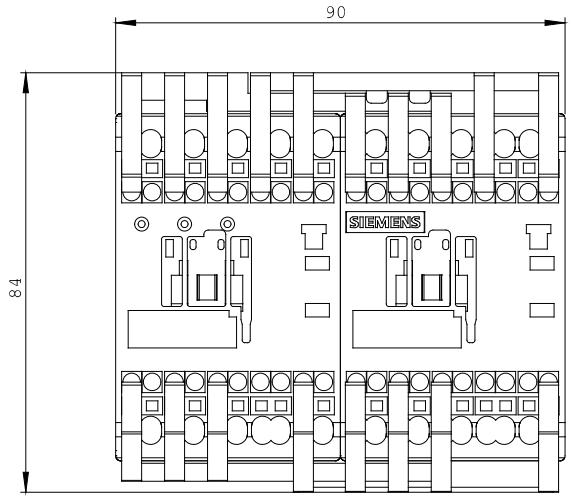
**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/industrial-controls/catalogs

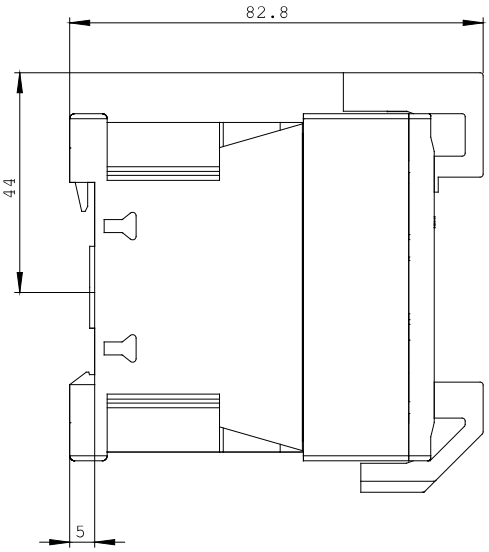
**Industry Mall (Online ordering system)**
http://www.siemens.com/industrial-controls/mall

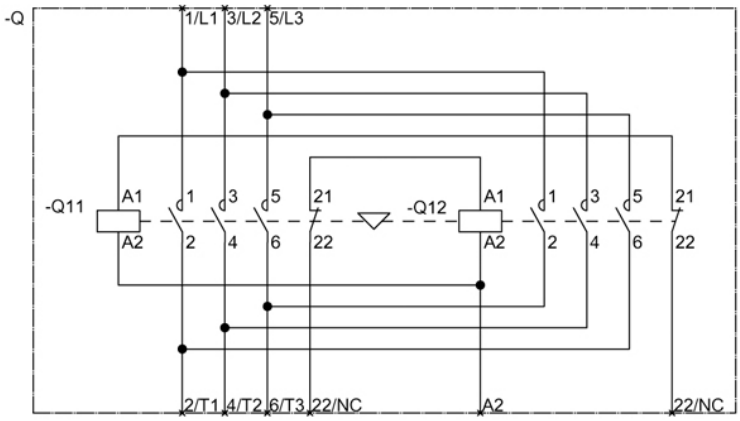
**CAx-Online-Generator**
http://www.siemens.com/cax

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3RA2318-8XE30-2BB4/all

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2318-8XE30-2BB4




**last change:** Oct 24, 2011